

# IC<sup>OH</sup>AH



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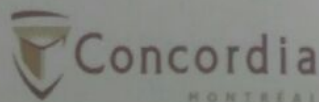
### The 4<sup>th</sup> International Conference on **ARTS AND HUMANITIES 2017**

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**MODERNIZATION OF OMO NIHA: STRIVING AGAINST EXTINCTION**

Ariesa P. &amp; Krismanto K.

*Faculty of Arts and Design, Maranatha Christian University, Indonesia***ABSTRACT**

Nias is an island that lies on the west coast of Sumatra, Indonesia. The island is a home for Nias people who still live in their traditional megalith cultures. Earthquakes frequently happen in Nias. Every large earthquake forms this island inches by inches from the surface of the sea. This geological feature makes Nias people develop a local wisdom to build their own traditional houses named Omo Niha. This concept is like a boat in a shaking island. Earthquakes never ruin these houses. Now these people face the inevitable challenges of modernization that are able to ruin the local language of their house form and bring them to extinction. This paper intends to describe the challenges of modernization for Omo Niha.

The lack of traditional materials, construction techniques, and knowledge on the local wisdom, values and meanings of the artifacts causes modern technology and materials can replace the original ones.

The modern lifestyle requirements and change of society have already become the challenging factors to preserve the cultural heritage. In this paper, qualitative descriptive methods are used to explore tensions, problems and solutions to these particular issues.

Keywords: Nias, Traditional Houses, Modernization, Cultural Heritage

# **Modernization of *OmoNiha*: Striving Against Extinction**

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# MODERNIZATION OF OMO NIHA: STRIVING AGAINST EXTINCTION

**Abstract:** Nias is an island that lies on the west coast of Sumatra, Indonesia. The island is a home for Nias people who still live in their traditional megalith cultures. Earthquakes frequently happen in Nias. Every large earthquake forms this island inches by inches from the surface of the sea. This geological feature makes Nias people develop a local wisdom to build their own traditional houses named OmoNiha. This concept is like a boat in a shaking island. Earthquakes never ruin these houses. Now these people face the inevitable challenges of modernization that are able to ruin the local language of their house form and bring them to extinction. This paper intends to describe the challenges of modernization for OmoNiha. The lack of traditional materials, construction techniques, and knowledge on the local wisdom, values and meanings of the artifacts causes modern technology and materials can replace the original ones. The modern lifestyle requirements and change of society have already become the challenging factors to preserve the cultural heritage. In this paper, qualitative descriptive methods are used to explore tensions, problems and solutions to these particular issues.

**Keywords:** Nias, traditional houses, modernization, cultural heritage

## Introduction

Nias is an island lies 75 miles from the western coast of Sumatra, in the Indian Ocean, right on the opposite of the port of Sibolga. It is a part of a string of island that mark the west border of Indonesian archipelago. Gunungsitoli is the main city of the island, located in the northern part of the east coast of the island, while TelukDalam being the southern harbor in the south. The surface of the island is approximately 4.475 km<sup>2</sup> which is mainly covered with hills oriented north-west/south-east in varying heights. Its highest point is the hardly accessible massif of Lolomatua (886 m).

Although it is near to its larger neighbor Sumatra, Nias or *TanoNiha* in their language, suffers frequent earthquakes in contrary. The largest earthquakes hit Nias on 28 March 2005. Seismic recordings give the earthquake a moment magnitude of about 8.6, and effects were felt as far away as Bangkok, Thailand, over 1,000 kilometers away. It is regarded as the second most powerful earthquake ever recorded in Indonesia and among the top 10 most powerful recorded worldwide since 1900. Many records and archeological proofs showed that several large earthquakes caused the emerging of the island from the ocean inches by inches. It explained the discovery of some shark tooth fossils in the center of the island.

The people of Nias, or *Ono Niha* in their language, derived from Proto-Malay races who has dark yellow skin with large upper cheek bones and thin eyes. They speak their own language that considered to be an Austronesian language. It is slightly different with most of the dialects in Indonesia. Nias language is vocalist; without consonant in the middle and end of the word. There are no apparent records that explained the origin of the Nias people. There is only some myth that were conveys from generation to generation and becoming an oral tradition to the people. They consist of many different ethical groups and practice a clan system that follows the paternal lineage, so that there are no such things as primordial entity. There were no trails of influenced by Hindu or Islam culture. It is more likely to be a hybrid cross cultural ethnic that retains the megalithic culture until now.



One of the most significant cultural artefacts of Nias is their traditional houses, called *OmoNiha*. There is an old saying that regards to the arrival of the ancestors of Nias: *Owo-Gomo-Omo* or Boat-Gomo-House. They believe that their ancestors once lived in a boat and cast ashore in the island. The boat is the main concept of their house that floats above the land. (Duha, 2012:12) So *OmoNiha* refers to a boat-shaped-house that floats in the shaking island. The houses represent a period of time when the people of Nias had developed advanced knowledge and skills. Before that particular period, Nias people lived in caves and trees. These houses bear witness to their undisputable talent as builders that survived so many earthquakes. Traditional constructions with mortise and tenon connections gathers natural materials together and concoct the three-dimensional structures with great resistance and elasticity to survive the earthquakes.

Meanwhile globalization and modernization is inevitable to all society, including the people of Nias. The spirit and the idea of the present pervaded the tradition inevitably. Hilde Heynen in her book 'Architecture and Modernity' stated that modernization as the process of social development in which modernity gives the present a specific quality that makes it different from the past and points the way toward the future. Modernity is about being a break with tradition and rejects constantly the inheritance of the past. (Heynen, 1999: 9-10). Therefore, modernity somehow both threatened the sustainability of the tradition whilst enforcing it to adapt.

The philosophers Paul Ricoeur has advanced the thesis that a hybrid 'world culture' will only come into being through a cross-fertilization between rooted culture on one hand and universal civilization on the other. (Kusbiantoro, 2013: 70) This is what happening to the people of Nias and their traditional houses. Information, knowledge, technology and modern lifestyle enter the life of the people and create certain modern needs. The need of privacy for each family member and space allocation to particular activities and function in the house obviously need to be accommodate. This paper tries to explore the tensions between the idea of preserving the houses as cultural heritage and the adaptability of the houses to changes cause by modernization, as well as discussing some strategiesto mediate it.

### **The Idea of OmoNiha**

The construction of *OmoNiha* is an expression of their habitual life on the sea; moving and adapting themselves to the sea wave. They are originally inspired by the boat with a dragon head ornaments in their ship's pavilion, which sails and landed on the island of Nias.. Fr. Johannes M. Hämmerle, OFM Cap, an Catholic priest and an anthropologist who dedicates his life in studying the culture of Nias, believes that the architecture that we find in Nias starts within the 12<sup>th</sup> to the 14<sup>th</sup> century along with the rise of the megalithic culture, the construction of statues, the tradition of honoring the ancestors, the establishments of custom law, and also agriculture and farming that developed in the island. It started in a region where the Gomo river ends at the river estuary of Susua river. The original Gomo house were built with vertical walls that supported the roof. Although we can see that these walls are built by wood plank nowadays, but in the past, it was almost impossible to produce wood planks due to tools limitations. That is why the houses of Gomo give the sense of rustic that also influenced by the wisdom of the carpenters that worked in shipyard in Sumatera. (Duha, 2012:37)

This type of house then copied by the people who moved to the southern part and developed more thoroughly. Some experts believe that the houses in southern Nias were influenced by the Dutch ship

design during the Dutch occupancy. It was modified from the original model. The vertical walls were slanted out so that the role of supporting the roof were replaced by wooden posts. These slanted walls formed a bigger interior space and shaped like a ship hull. Since all the four walls were slanted out, there were 4 empty corners created by consequence. To resolve the problems, later the corners were rounded off and produce an oval shaped house called *OmoLaraga*, that we can find in the northern part of the island. (Duha, 2012:38)

The interior of the house was clearly divided into two areas: the public space in the front and the private space at the back and sides. The floor was raised above the ground and supported by pillars. To resist the frequent tremors caused by earthquakes, there was an original and unique solution in the world of vernacular architecture. The houses are set not only on series of vertical pillars but also on slanting piles called *ndriwa* to create a three-dimensional structure which allows flexibility instead of anchored into the ground. (Viaro and Ziegler, 2017: 36)

Beside the horizontal zoning, the house has also a vertical zoning of three different levels that have its own structural system and serve a different function. It is what ReimarSchefold, a Dutch anthropologist from University of Leiden, called a tripartite structure that become one of the common feature of Indonesian vernacular architecture. (Schefold, 2004) The tripartite structure refers to a spiritual differentiation: the underworld, the present world and the upper world of the ancestors. The substructure level represents the underworld. This originally open space is only used for storage and for animals. The living area in the middleallegories the present world, the place where everyday life takes place. Ancestors and gods have their space in the roof as the place of the heavenly world.

### **Traditional House Types of Nias**

In further development, there are 2 different types of Nias traditional houses. The northern and center part of Nias developed an oval shaped house or *OmoLaraga*, while the southern part of Nias developed a rectangular row house with slanting front façade. (Fig. 1 & 2)



*Figure 1: The oval house type of the north    Figure 2: The rectangular row house of the south*

The northern Nias house have a huge roof like a hat supported by 4 rounded wooden pillars directly from the ground. The roof is covered by palm leaves that assembled with bamboos. The entrance is on the side of the building that directed to a public area where we can find a window flap on the roof

which is very significant in Nias houses. There are another 2 central pillars that lead from ground to the ridge pole. The pillars are placed on top of a natural stone in the substructure of the house. Different kinds of woods are used according to the position within the construction. They use the *manawadano*, a local very dense timber for the pillars. Wooden beams support the floor and jointed without nails and screws but tied up with vegetal materials which are very flexible in case of earthquakes. The floors and walls are made of wooden planks from a local *afoa* timber that seems more appropriate against fire. (Viaro and Ziegler, 2017: 38) We might find certain carving ornaments in the walls that show the status of the owner.

As Viaro and Ziegler mentioned, in the northern Nias house, the slanting piles are crossing in the middle, and their base stands on a natural stone. The top ends are embedded in the horizontal beams which support the floor. The slanting piles behind the façade are placed lengthways while those which is under the middle of the house are placed crosswise, and above all are ballasted in their center by logs or blocks of stone to increase the stability of the whole. (Viaro and Ziegler, 2017: 37)

Different with the northern house, the southern Nias house have a rectangular floor plan, straight load bearing sidewalls and a slanting front façade. The most significant feature is the v-shaped diagonal bracing in the front façade of the house with a very high steeply pitched roof covered by palm leaves with window flaps. They are arranged in a row with a side entrance that connect one house with another. Only in the noble house, the entrance is through a bottom flap on the floor among the substructure pillars. (Fig. 3)



Figure 3: The noble house in Southern Nias



Figure 4: The slanting piles base of the noble house

In the southern house, the slanting substructure piles leans against each other at their base and at their top fit into the horizontal beams placed under the floor of the house. (Fig 4) They are set both along and across the building creating a v-shaped bracing on the substructure. A quite similar structure can be seen in the roof, but only transverse slanting beams crossing in the center, lean at the upper and lower ends on the vertical and horizontal parts of the framework. (Viaro and Ziegler, 2017: 36) The three-dimensional structure offers great resistance and has the required elasticity and flexibility due to

the separation from the ground. The separation of the house from the ground is the most important vernacular notion for earthquake resistant building.

### **Modernization Issues**

One of the most influential modernization theorist, Karl Marx, argued that economic development that brought by the developed societies bring pervasive cultural change to the less developed one. Modernization earlier in the 20<sup>th</sup> century shows the future to the less developed societies, as well as presenting a uniquely Western process that the others could only follow by abandoning their traditional culture and adopting technologically and morally Western ways. But Inglehart and Baker noted that during the second half of the century, the non-Western societies surpassed the Western role model in key aspects of modernization. (Inglehart and Baker, 2000: 19) So modernization that threatened the sustainability of the traditional culture is not merely Western ideas, but came from a more developed country of Asia with a strong hybrid culture that came from cross-fertilization of universal modern culture and the rooted traditional culture.

In terms of Nias, the process of modernization was strongly influenced by the political and administrative structure of Indonesia. Nias has its own regional administrative office called *Kabupaten*. *Kabupaten* is divided into district or *Kecamatan* and each *Kecamatan* is also consist of several village (*Desa*) or *Kelurahan*. This administrative division gives the army power and also raises the new Indonesian class of civil servants, which superimpose itself on the traditional political structures. (Viaro and Ziegler, 2017: 10)

This system gives a certain district a sense of identity as well as putting them under a political structure and power. Sometimes the system also required people to move and live closely in a certain district, and creates new living needs. New technology and information are obviously the main factors that produce a new lifestyle issues that put the modern one above the traditional.

For example, the modern lifestyle demands a specific functional space in a house such as living room, dining room and bed rooms, while in the traditional lifestyle, they only need one bedrooms and one living rooms to accommodate all the activities. Furthermore, modern lifestyle urges the need of privacy to all family members so that all children within the family required their own personal space and rooms. Consequently, some houses need to be expanded to meet the requirements. The most possible solution is to use the substructure level or to create an attic in the roof structure. This particular decision requires adjustments in the substructures and the roofing structures.

For instance, a house in certain village in the western part of Nias that developed an attic to add another 2 bedrooms for the children. They adjusted the roof structure but keep the original shape. This adjustment followed by the roofing material change from traditional palm leaves into painted metal sheet and also paint the walls to give a sense of identity and difference among the others. They also extend the entrance with another structure to add more rooms when one of the children got married to give more privacy for the new family. (Fig. 5)

In Bawomataluo village, southern part of Nias, we can find some houses with a different solution to fulfill the needs of more private space. They adjusted the substructure by replacing some supporting vertical and slanting pillars with bearing walls around the space under to support the structure. Then, they removed some pillars to create more empty spaces under and produce a basement like space in

the substructure. They divided the space into some rooms using any possible materials and put an entrance door under the house. (Fig. 6)



*Figure 5: A 2 storey house with roof adjustments*



*Figure 6: A house with a substructure adjustments*

The lack of good quality vegetal materials like woods, palm leaves and bamboos nowadays also incite people to switch into modern prefabricated materials such as bricks, metal sheet, nails and screws and even concrete. The situation is aggravated by the lack of traditional skills and notions in the younger generations in constructing traditionally. Therefore, the traditional skills and notions of constructing traditional houses are slowly abandoned.

### **Strategic Policies to Conserve the Heritage**

In order to save these valuable heritages, some strategies and policies had been taken. The first important thing is to create a sense of public awareness about the values of these heritages. The people of Nias must realize to conserve and nurture their traditional culture instead of abandoning it and change it in a modern way. They need to know the idea of adapting modernity instead of replacing the traditions with modern lifestyle.

Next thing is by developing the sites as tourism destination that entails these following aspects: regional planning system, space and land use planning, standardization, potentials identification, cross sectoral coordination, funding, monitoring, etc. This policy requires support from all stakeholders: local government, local people, academicians, cultural institutions and also actors of tourism.

This policy once was followed by developing a conservation, renovation and restoration program of Nias traditional houses and the traditional village planning. It had already been done by the local government in collaboration with University of Tsukuba (Japan) and Universitas Gajah Mada (Indonesia) as partners and consultant in Bawemataluo village in Southern Nias. The result is a blue print draft for conserving and planning traditional village of Bawemataluo. The program includes some workshops funded by the Japanese Department of Culture in collaboration with the Ministry of Education and Culture Indonesia, local government and local people of Bawemataluo village.

Another possible strategic policies that need to be undertaken to save these valuable heritages are revitalization of the cultural character and the ingenuity of Nias culture, developing culture in terms of

international standards and qualities both tangible and intangible and revitalizing the marketing of the cultural products in tourism context through branding, promotions, products assurance and business planning.

## **Conclusions**

In terms of natural disasters threat, fortunately people of Nias has the ancient technology of constructions that save many traditional buildings from the attack of earthquakes, times and nature. But modernization is inevitable. In order to strive the heritages from extinction due to the raid of modernity, public awareness of the values of these heritages must be developed.

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